2.0 PCB Workgroup

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Progress Toward Challenge Goals

The specific PCB reduction challenges called for under the GLBTS are provided below, along with narrative and graphical information on quantitative progress made toward the challenges as of mid-2001.

Canadian Challenge: Seek by 2000, a 90 percent reduction of high-level PCBs (>1 percent PCB) that were once, or are currently, in service and accelerate destruction of stored high-level PCB wastes which have the potential to enter the Great Lakes Basin, consistent with the 1994 COA.

As of April 2001, approximately 80 percent of high-level PCB wastes had been destroyed; up from approximately 40 percent from Spring 1998 when work in support of the GLBTS commenced (Figure 2-1.) Further, approximately 25 percent of low-level PCB wastes have been destroyed (a large portion of the remaining low-level waste is soil from a contaminated site clean up, stored in an engineered contaminated facility). It is expected that strong progress toward the target will be sustained. Awareness among owners continues to increase; options available for destruction have increased over the past two years; and, owners of large quantities have been able to incorporate PCB phase-out/destruction into multi-year operating plans.

United States Challenge: Seek by 2006, a 90 percent reduction nationally of high-level PCBs (>500 ppm) used in electrical equipment. Ensure that all PCBs retired from use are properly managed and disposed of to prevent accidental releases within or to the Great Lakes Basin.

USEPA expects that the U.S. challenge for a 90 percent PCB reduction will be met by 2006. The reduction will be measured using as a baseline the estimated 200,000 transformers containing high-level PCBs in use in 1994 (Figure 2-2.) The 1999 PCB Transformer Registration Database shows that

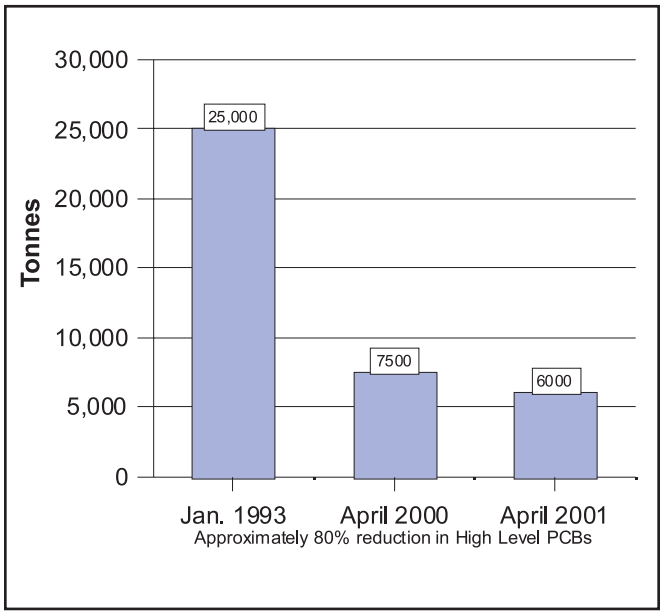


Figure 2-1. Canadian PCB Challenge

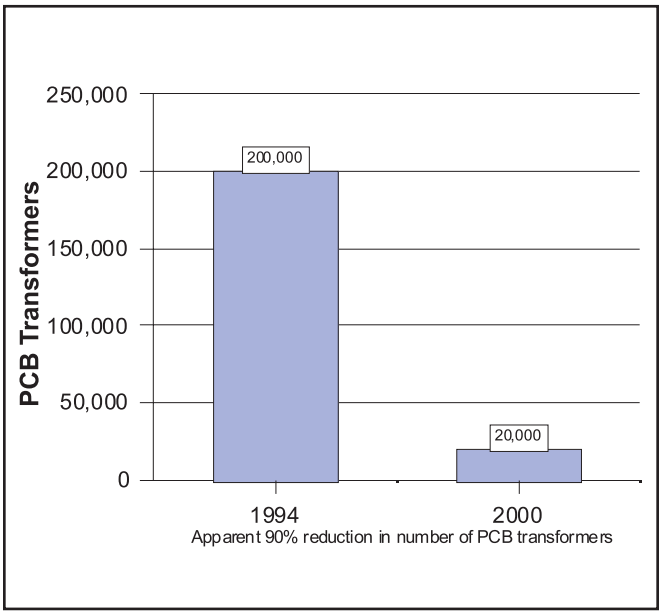


Figure 2-2. United States PCB Challenge

there are approximately 20,000 PCB transformers currently registered and in-use in the U.S., but the actual number remaining in use is likely to be higher due to the number of transformers that have not had their oil tested and are not registered in the database. However, based on the annual reports submitted by PCB disposers, reductions of PCB transformers and capacitors continue to occur. USEPA is currently evaluating data on the amount of PCBs destroyed over the past five years, which will help to track progress toward meeting the U.S. challenge.

Workgroup Activities and the 4 Step Process

The focus of the PCB Workgroup in the past year has been on Steps 3 and 4: the identification and implementation of reduction options. Workgroup activities included posting reports to the GLBTS website (www.epa.gov/glnpo/bns/) entitled, *Report on Polychlorinated Biphenyls (PCBs): Sources and Regulations,* and *PCB Step Three Report: Options for Reducing PCBs*. These reports address Steps 1 and 2 and Step 3, respectively. Comments have been received on each report.

Reduction Activities

Canada PCB Reduction Commitment Letters: Since the Workgroup's PCB Commitment letters were mailed out in late 1999 to the automotive and iron and steel sectors, the three big automotive manufacturers and four steel companies have responded, noting significant progress toward the PCB challenges.

DaimlerChrysler Canada has shown leadership in phasing out hazardous materials at its Ontario facilities. By 2002, the company plans to dispose of their PCBs in the Windsor and Toronto areas. The company has already removed all high-level PCBs from transformers and capacitors at its facilities and shipped them to a government-licensed incinerator in Swan Hills, Alberta, for destruction.

Algoma Steel Incorporated's Ontario operations have voluntarily committed to eliminate, by December 2005, a volume equivalent to the estimated 71,103 kilograms (44,400 liters) of PCBs that were held in approved storage as of the end of 1999. The elimination of the firm's existing stored inventory was originally scheduled to begin in 2001. Algoma seized an opportunity in 2000, a year ahead of its own schedule, to proceed with the direct shipment and destruction of approximately 13,300 kilograms (8,300 liters) of PCBs from equipment being taken out of service.

As part of an Environment Canada initiative to contact industrial/commercial sectors that manage PCB materials, a presentation was made in March 1999 to representatives of the steel industry in Canada on the GLBTS challenge for PCB reductions. Subsequent to this meeting, Slater Steel Company contacted Environment Canada to report that they had removed all of their PCB materials by the end of 1998.

With deregulation of the Ontario power industry by the Provincial Government now underway, the 250 municipal electrical utilities in Ontario recently amalgamated into approximately 92 new utilities. The workgroup has engaged the Municipal Electric Association to help in re-mailing the PCB commitment letter to these new utilities in October 2001. A previous mailing to the former utilities resulted in 15 of 20 large utilities, including Toronto Hydro, and 21 other utilities submitting their commitment letters to Environment Canada. For example, Ontario Hydro has destroyed approximately 1,900 metric tons of PCB wastes or 24.7 percent of its total inventory (using 1994 as a baseline). The company target is to destroy approximately 81 percent of the total PCB inventory by the end of 2005 and to be PCB free by the end of 2015 (although this date needs to be renegotiated). Ontario Hydro is one of the largest utilities in North America in terms of installed generating capacity.

The Council of Great Lakes Industries (CGLI) has also been engaged to mail PCB phase-out commitment letters to their constituent trade associations or groups. To date, the Aluminum Association of Canada, the Vinyl Council of Canada,

the Canadian Petroleum Products Institute (CPPI and its members reported to have eliminated 90 percent of their PCBs), and two of 34 forestry companies have responded. Responses are awaited from the other sectors contacted, namely the Hearth Association, Canadian Portland Cement Association, and Forest Association.

United States PCB Reduction Commitment Letters: USEPA, with support from CGLI, sent letters to five major national trade associations seeking their support and assistance in pursuing voluntary reductions of PCBs by their members. Most of the associations have contacted their members about the letter and USEPA's voluntary PCB reduction efforts.

Bethlehem Steel submitted a response to USEPA's request to voluntarily remove PCBs. They described their extensive efforts to reduce PCBs at their facility and noted that they will strive to do their share to meet the PCB reduction goals. They noted that they have not yet formally committed to eliminate PCBs at their facility due to the impact of the steel market's condition on their ability to address initiatives as they are weighed in conjunction with other pressing environmental issues at the facility which may be driven by regulation or risk. USEPA also received a letter from U.S. Steel in which they elected not to commit to the specific schedules of the PCB reduction challenge, but noted that they have committed significant resources to the remediation of PCB equipment and will continue to do so.

USEPA identified other individual businesses and trade associations targeted for additional outreach, through which voluntary reductions of PCB equipment will be sought.

United States PCB Phasedown Program: In November 2000, USEPA Region 5 presented the final PCB Phasedown Program - Pilot Project to eleven of the major utilities in the Great Lakes Basin and sought their commitments to voluntarily phase down their remaining PCB electrical equipment. Under the pilot project, if a utility commits to remove its PCB equipment and self-disclose any potential violations of the PCB or TRI regulations, as an incentive, USEPA would offer reductions to any penalty that may be assessed, up to 100% in some cases. Six of the eleven utilities responded to date. All six committed to continue to remove any PCBs they have or find, two stating that they already removed all of their known high-concentration PCBs. None of the six took advantage of the programs' self-disclosure policy. The five utilities which have not submitted formal responses requested more time to consider the obligations, policies, and incentives of the program.

United States PCB Phase Out at Federal Facilities: In an effort to reduce PCB equipment owned by the U.S. Government, USEPA identified which federal facilities own PCB transformers and then evaluated ways to phase out the PCBs. The main approach was determined to be a letter from a senior USEPA official to counterparts in other federal departments or agencies. The letter would seek reductions of federally owned PCBs and would be combined with necessary follow-up. A draft letter has been developed.

Information Resources: The web site for the PCB Workgroup was updated and information that the workgroup had been working on was posted (see www.epa.gov/glnpo/bns/pcb). The new information included: 1) photographs of transformers and capacitors, which should help increase the awareness of the types of equipment that may contain PCBs by displaying actual examples of the equipment; 2) a fact sheet on submersible well pumps; and, 3) a case study on the removal of PCBs provided by Bethlehem Steel, which is intended to promote the removal of PCBs by companies that have not yet done so by providing examples of beneficial factors considered when companies decide to remove their PCBs. In addition, the workgroup is updating the standard presentation that can be used by members and non-members to help describe the GLBTS, the PCB challenges, workgroup actions, and PCB reduction commitments being sought when they meet and associate with other potential stakeholders. All of this information is intended to encourage and facilitate the identification and removal of PCB equipment.

Survey of PCB In-Use Inventory: Canada updated its inventory of in-use PCB equipment for Ontario. A letter and survey was mailed out in February 2000 to approximately 500 registered owners of in-use PCB equipment in Ontario, requesting

updated information, if applicable, as well as a questionnaire requesting information on plans for decommissioning and destruction. Approximately 51 percent have returned the survey and approximately 31 percent of those that responded indicated a PCB decommissioning plan within the next 5 years. A fact sheet is available from Ken De, P.Eng. at Environment Canada, Ontario by phone (416) 739-5870, or by e-mail: ken.de@ec.gc.ca.

PCB In-Service Equipment Data Base: In order to update the PCB Waste Inventory (federal and non-federal), a letter was mailed out in November 2000 to over 2,000 registered PCB waste storage owners/managers in Ontario for a recent update of their stored PCB inventory. A large number of companies indicated that they had destroyed or treated their PCBs and no longer hold PCBs, with the submission of copies of destruction certificates, manifests, and recent records. These are being updated to modify federal databases for better tracking and monitoring.

Coordination with Lakewide Management Plans (LaMPs): In September 2001, Environment Canada mailed out a package of information to small quantity PCB owners (approximately 340 companies) in the Lake Superior and Lake Erie drainage basins. The purpose was to raise awareness of PCB initiatives underway in support of the GLBTS. The package included the PCB Owner Outreach Brochure, a PCB Workgroup activity regional update, a fact sheet describing the Ontario PCB in-use inventory survey results, and a PCB location/quantity map for the Lake Superior or Lake Erie Basin.

Within USEPA, the workgroup leader and the LaMP managers worked together to coordinate the workgroup's PCB reduction efforts with the LaMPs in developing a Great Lakes Commitment Tracking database.

Cook County (Illinois) PCB and Mercury CleanSweep: The Cook County PCB and Mercury CleanSweep Partnership, completed in December 2000, was the capstone of discussions beginning in 1997 among USEPA, Illinois EPA, Cook County, the City of Chicago, and industry and academia. Its goals were to provide incentives and an outlet for small businesses and local governments in Cook County to properly dispose of their PCB- and mercury-containing equipment. The Partnership targeted small businesses and local government entities such as electrical contractors, suspected generators of PCBs used oil processors, park districts, schools, and local government agencies, because these entities are not served by household hazardous waste collection events or national enforcement initiatives. An extensive outreach campaign, including a CleanSweep marketing effort, was undertaken.

As incentives, the Partnership offered disposal of PCB- and mercury-containing materials at roughly 50% off usual prices, free recycling of PCB-contaminated used oil through a Supplemental Environmental Project, and anonymity. Other motivators identified through the Partnership included free testing and free waste audits. Offering reduced disposal costs is less of an incentive than originally thought because the targeted participants typically use the low-cost alternative of disposal in municipal waste. The Partnership collected: 135 HID bulbs; fluorescent bulbs (57 eight-foot boxes and 231 four-foot boxes); fifteen gallons of lab-packed mercury waste for stabilization; 134 gallons of lab-packed mercury for retort; 640 PCB ballasts; hexane/PCB oil (55 gallon drum); one large PCB transformer; and, one large and one small PCB capacitor.

Canadian Regulatory Activities: Environment Canada's regulatory amendment process is underway which proposes strengthening of federal regulations regarding PCB management. The Chlorobiphenyl Regulations and Storage of PCB Material Regulations were promulgated in 1977 and 1992, respectively. Combined, these two regulations presently address management aspects including use, sale, manufacture, release, and storage. Highlights of the proposed amendments would strengthen these regulations as follows:

- PCB phase-out from sensitive sites
- Limit levels in products to 2 ppm (pigment)
- PCB storage time of 2 years
- Phase-out of all uses by 2008
- Prohibition against storage after 2010 for existing stored material

An extensive public consultation was conducted

during the summer and fall of 2000. The amended regulation could be promulgated in the year 2002 in Gazette II.

Canada's PCB Waste Export Regulations (SOR/97-108) are being amended and are expected to be published in Gazette I in 2002. Public consultation is planned for December 2001.

A notice with respect to *Polychlorinated Biphenyls in Automotive Shredder Residue* was published in the Gazette, Part I, on July 7, 2001 for automobile shredding facilities that generated PCB-contaminated residue during 1998, 1999, or 2000.

U.S. Regulatory Activities: USEPA finalized the Reclassification of PCB and PCB-contaminated Electrical Equipment rule. This rule amended the requirements for reclassifying high-concentration (>500 ppm) PCB transformers to concentrations less than 500 ppm or less than 50 ppm (non-PCB). The rule should accelerate the phase out of PCB transformers and other PCB equipment because it reduces the regulatory and economic burden of reclassification.

USEPA also finalized a rule on *Return of PCB Waste from U.S. Territories Outside the Customs Territory of the U.S.* This rule clarified that PCB waste in U.S. territories and possessions outside the customs territory of the U.S. may be moved to the customs territory of the U.S. for proper disposal at approved facilities. The rule ensures that a safe and viable mechanism exists for the protection of health and the environment for those citizens in areas of the U.S. where facilities are not available for the proper management and disposal of PCB waste.

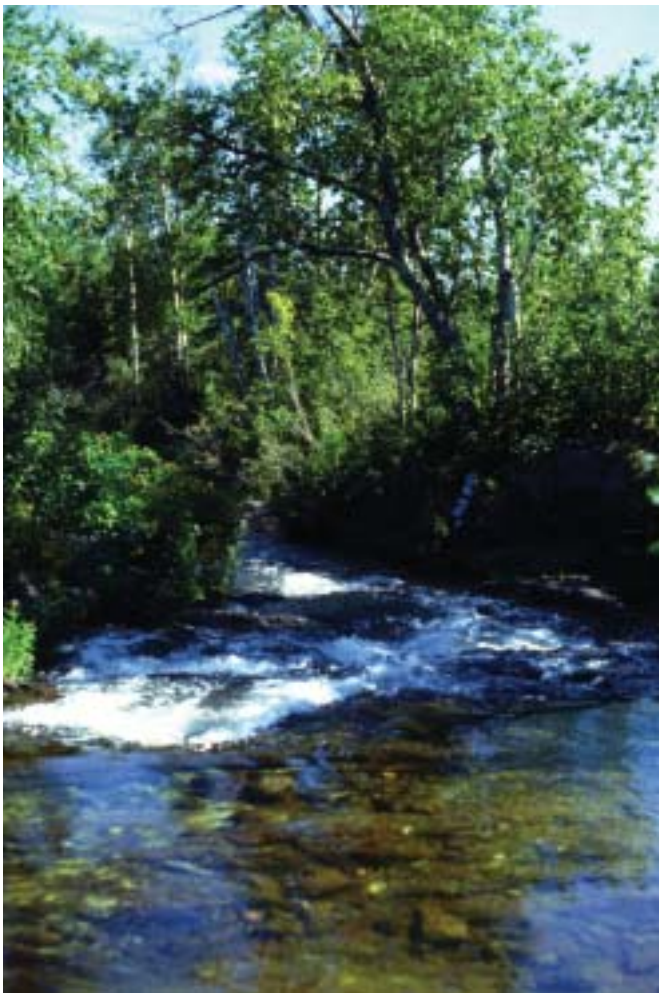
Next Steps

The workgroup plans to continue its core activities, which include the following:

PCB Reduction Commitments: The workgroup will continue seeking commitments to reduce PCBs through PCB reduction commitment letters and other PCB phase-out efforts.

Outreach/Sharing Information: The workgroup will continue to develop, distribute, and post on the workgroup web site information which can facilitate and promote, as applicable, the identification and removal of PCB equipment, such as photographs of electrical equipment, fact sheets, case studies which identify reasons companies remove PCBs, and a standard presentation of the PCB Workgroup's challenges and activities. The workgroup will also continue to consider incentives for removing PCB equipment.

PCB Releases from Equipment and Sites: The workgroup will prepare and post on the web site data documenting the release of PCBs from equipment, containers, and storage sites and will identify the best ways to use this information to achieve additional reductions of PCB equipment.



Isle Royale National Park, Michigan
Photograph by Patrick T. Collins
Minnesota Department of Natural Resources